



### UNH-T2H-T3H-T4H

Universal Air Handler Multi-Zone Limited Range Heat Pump

Rev. B [10/08]

JOB NAME:	LOCATION:
PURCHASER:	
ENGINEER:	
SUBMITTED TO:	FOR: REFERENCE [] APPROVAL [] CONSTRUCTION []
SUBMITTED BY:	DATE:
UNIT DESIGNATION: SCHEDULE #:	MODEL #:

Manufacturer reserves the right to change these specifications at any time without incurring obligation.

# \* PERFORMANCE: —

Performance certified in accordance with ARI 210/240

### **COOLING**

Indoor design conditions: 80°F Dry Bulb / 67°F Wet Bulb Outdoor design conditions: 95°F

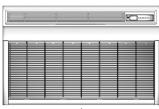
#### **HEATING**

Indoor design conditions: 70°F Dry Bulb / 57°F Wet Bulb Outdoor design conditions (*High*): 47°F Dry Bulb / 43°F Wet Bulb

	UNH / T2H, T3H, OR T4H SYSTEM CAPACITIES										
Мс	odel		Cooling		Heating						
Outdoor	Indoor Air Handler	Btuh (kW)	SEER	R SHR EER		Btuh (kW)	HSPF	СОР			
T2H8800	(2) UNH24	36000 (10.5)	13	0.72	12.1	26800 (7.6)	7.7	3.3			
T2H8400	(2) UNH24	42000 (12.3)	13	0.68	11.9	32000 (9.4)	7.7	3.2			
T2H4400	(2) UNH24	48000 (14.0)	13	0.65	11.8	37400 (11.0)	7.7	3.2			
T2H2400	(1) UNH12 (1) UNH24	35000 (10.2)	13	0.67	11.7	27800 (8.1)	7.7	3.2			
T2H9800	(1) UNH09 (1) UNH24	27200 (8.0)	13	0.74	12.0	20800 (6.1)	7.7	3.3			
T3H9990	(3) UNH09	27800 (8.1)	13	0.80	11.9	22200 (6.5)	7.7	3.3			
T3H9920	(2) UNH09 (1) UNH12	29800 (8.7)	13	0.76	11.8	24000 (7.0)	7.7	3.3			
T3H9980	(2) UNH09 (1) UNH24	36400 (10.7)	13	0.76	12.0	28200 (8.3)	7.7	3.3			
T3H9940	(2) UNH09 (1) UNH24	42500 (12.4)	13	0.71	11.8	33400 (9.8)	7.7	3.2			
T3H9220	(1) UNH09 (2) UNH12	31800 (9.3)	13	0.74	11.7	25800 (7.6)	7.7	3.3			
T3H9280	(1) UNH09 (1) UNH12 (1) UNH24	38500 (11.3)	13	0.73	11.9	30000 (8.8)	7.7	3.3			

Circuit Designators: 9 = 9000 Btuh 2 = 12000 Btuh 8 = 18000 Btuh 4 = 24000 Btuh (ex. - 8400 consists of one 18000 Btuh compressor and one 24000 Btuh compressor)







Top Discharge Condensers



Chart continued next page .....

	(Continued) UNH / T2H, T3H, OR T4H SYSTEM CAPACITIES										
	Model		Cooling	g		Heating					
Outdoor	Indoor Air Handler	Btuh (kW)	SEER	SHR	EER	Btuh (kW)	HSPF	СОР			
T3H9240	(1) UNH09, (1) UNH12, (1) UNH24	44500 (13.0)	13	0.69	11.7	35200 (10.3)	7.7	3.2			
T3H2280	(2) UNH12, (1) UNH24	40500 (11.9)	13	0.76	11.8	31800 (9.3)	7.7	3.3			
T3H2240	(2) UNH12, (1) UNH24	46500 (13.6)	13	0.68	11.7	37000 (10.8)	7.7	3.2			
T3H2220	(3) UNH12	34000 (10.0)	13	0.72	11.7	27600 (8.1)	7.7	3.3			
T4H9999	(4) UNH09	37200 (11.0)	13	0.8	11.9	29600 (8.7)	7.7	3.3			
T4H9992	(3) UNH09, (1) UNH12	39000 (11.4)	13	0.77	11.8	31400 (9.2)	7.7	3.3			
T4H9922	(2) UNH09, (2) UNH12	41000 (12.0)	13	0.76	11.8	33200 (9.7)	7.7	3.3			
T4H9222	(1) UNH09, (3) UNH12	43000 (12.6)	13	0.72	11.6	35000 (10.3)	7.7	3.3			
T4H2222	(4) UNH12	45000 (13.2)	13	0.72	11.7	36800 (10.8)	7.7	3.3			

Circuit Designators: 9 = 9000 Btuh 2 = 12000 Btuh 8 = 18000 Btuh 4 = 24000 Btuh (ex. - 8400 consists of one 18000 Btuh compressor and one 24000 Btuh compressor)

### UNH / T2H, T3H, OR T4H CIRCUIT PERFORMANCE DATA

	Model	a	Cooling	Heating
Outdoor	Indoor Air Handler	Circuit	Btuh (kW)	Btuh (kW)
T2H8800	(2) [[N]]]	1	18,000 (5.3)	13,400 (3.9)
1200000	(2) UNH24	2	18,000 (5.3)	13,400 (3.9)
T2H8400	(2) UNH24	1	18,000 (5.3)	13,400 (3.9)
1200400	(2) UNH24	2	24,000 (7.0)	18,700 (5.5)
T2H4400	(2) HINH24	1	24,000 (7.0)	18,700 (5.5)
T2H4400	(2) UNH24	2	24,000 (7.0)	18,700 (5.5)
T2U2400	(1) UNH12	1	11,000 (3.2)	9,200 (2.7)
T2H2400	(1) UNH24	2	24,000 (7.0)	18,700 (5.5)
T0110000	(1) UNH09	1	9,200 (2.7)	7,400 (2.2)
T2H9800	(1) UNH24	2	18,000 (5.3)	13,400 (3.9)
		1	9,200 (2.7)	7,400 (2.2)
Т3Н9990	(3) UNH09	2	9,200 (2.7)	7,400 (2.2)
		3	9,200 (2.7)	7,400 (2.2)
		1	9,200 (2.7)	7,400 (2.2)
T3H9920	(2) UNH09 (1) UNH12	2	9,200 (2.7)	7,400 (2.2)
	(-)	3	11,300 (3.3)	9,200 (2.7)
		1	9,200 (2.7)	7,400 (2.2)
T3H9980	(2) UNH09 (1) UNH24	2	9,200 (2.7)	7,400 (2.2)
	(1) 5111.21	3	17,900 (5.2)	13,400 (3.9)
		1	9,200 (2.7)	7,400 (2.2)
T3H9940	(2) UNH09 (1) UNH24	2	9,200 (2.7)	7,400 (2.2)
	(1) 5111.21	3	23,900 (7.0)	18,700 (5.5)
		1	9,200 (2.7)	7,400 (2.2)
T3H9220	(1) UNH09 (2) UNH12	2	11,300 (3.3)	9,200 (2.7)
	(2) 5111112	3	11,300 (3.3)	9,200 (2.7)
	(1) UNH09	1	9,200 (2.7)	7,400 (2.2)
T3H9280	(1) UNH12	2	11,300 (3.3)	9,200 (2.7)
	(1) UNH24	3	17,900 (5.2)	13,400 (3.9)
	(1) UNH09	1	9,200 (2.7)	7,400 (2.2)
T3H9240	(1) UNH12	2	11,300 (3.3)	9,200 (2.7)
	(1) UNH24	3	23,900 (7.0)	18,700 (5.5)

	Model		Cooling	Heating
Outdoor	Indoor Air Handler	Circuit	Btuh (kW)	Btuh (kW)
		1	11,300 (3.3)	9,200 (2.7)
T3H2280	(2) UNH12 (1) UNH24	2	11,300 (3.3)	9,200 (2.7)
	(1) 5111.21	3	17,900 (5.2)	13,400 (3.9)
		1	11,300 (3.3)	9,200 (2.7)
T3H2240	(2) UNH12 (1) UNH24	2	11,300 (3.3)	9,200 (2.7)
	(1) 5111.21	3	23,900 (7.0)	18,700 (5.5)
		1	11,300 (3.3)	9,200 (2.7)
T3H2220	(3) UNH12	2	11,300 (3.3)	9,200 (2.7)
		3	11,300 (3.3)	9,200 (2.7)
		1	9,300 (2.7)	7,400 (2.2)
T4110000	(4) 11011100	2	9,300 (2.7)	7,400 (2.2)
T4H9999	(4) UNH09	3	9,300 (2.7)	7,400 (2.2)
		4	9,300 (2.7)	7,400 (2.2)
		1	9,300 (2.7)	7,400 (2.2)
T4H9992	(3) UNH09	2	9,300 (2.7)	7,400 (2.2)
1409992	(1) UNH12	3	9,300 (2.7)	7,400 (2.2)
		4	11,200 (3.3)	9,200 (2.2)
		1	9,300 (2.7)	7,400 (2.2)
T4110000	(2) UNH09	2	9,300 (2.7)	7,400 (2.2)
T4H9922	(2) UNH12	3	11,200 (3.3)	9,200 (2.7)
		4	11,200 (3.3)	9,200 (2.7)
		1	9,300 (2.7)	7,400 (2.2)
T4110000	(1) UNH09	2	11,200 (3.3)	9,200 (2.7)
T4H9222	(3) UNH12	3	11,200 (3.3)	9,200 (2.7)
		4	11,200 (3.3)	9,200 (2.7)
		1	11,200 (3.3)	9,200 (2.7)
T4H2222	(4) LINIH12	2	11,200 (3.3)	9,200 (2.7)
1402222	(4) UNH12	3	11,200 (3.3)	9,200 (2.7)
		4	11,200 (3.3)	9,200 (2.7)

Manufacturer reserves the right to change these specifications at any time without incurring obligation.

# STANDARD FEATURES: -

#### **INDOOR UNIT:**

- Ceiling-Suspended or Floor Console mounted
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Indoor Coil
- Unit-mounted, Infrared compatible control package, configurable to either unit mount or 24 Volt wall thermostat
- Control programming stored in non-volatile memory (unit will restart following power failure)
- Indoor coil freeze protection
- Anti-short cycle compressor protection
- Fan purge
- Dry mode for humidity control (requires electric heat)
- Factory-installed condensate pan overflow protection
- Factory-supplied molex-type connector for condensate pump power and control connections
- 24-7 programing
- · One year Limited Parts Warranty

#### **OUTDOOR UNIT:**

- Top Condenser Air Discharge Unit
- Independent Circuits, up to four circuits
- Standard Operating Low Ambient in Cooling 32 °F (0 °C)
- Internally Enhanced Copper Tube/Enhanced Aluminum Fin Outdoor Coil
- R-22 Refrigerant
- Factory installed Hard Start Assist
- Suction Accumulator (9,000, 12,000, 18,000 Btuh circuits only)
- Solid Core Filter Drier
- Thermostatically controlled Compressor Crankcase Heater (9,000, 12,000, Btuh circuits only)
- High pressure control (18,000 and 24,000 Btuh zones)
- Coated Wire Grille Condenser Coil Protection and Fan Guard
- Five years Limited Compressor Warranty, One year Limited Parts Warranty

Please use check-box to select Options and Accessories.

FACTORY INSTALLED OPTIONS:	FIELD INSTALLED ACCESSORIES:
INDOOR UNIT  Power Connection:  ☐ 115-1-60 ☐ 208/230-1-60  Electric Heat: ☐ None ☐ 0.75 / 3.0 kW (115/230 Volt) ☐ 1.25 / 5.0 kW (115/230 Volt) for UNH24 only	INDOOR UNIT  Condensate Pump:  48" (1.2 m) Lift  144" (3.7 m) Lift  Floor Mount Trim Kit (Required for Floor Mount with Condensate Pump accessory)  24 Volt Wall Thermostat  Infrared Hand-held Controller  Metal Return Air Grille
OUTDOOR UNIT  Power Connection:  208/230-1-60  Condenser Coil:  Copper Tube/ Copper Fin  Copper Tube/ Post-Coat Aluminum Fin	OUTDOOR UNIT  Wind Baffle/Hail Guard, Architectural Louver Kit  Refrigerant Line Sets  10' 25' 50'

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# **ELECTRICAL SPECIFICATIONS**

Indoor Unit	V-Ph-Hz	Voltage		Indoor F	loor Fan Motor		Heater		MCA	МОСР
IIIdoor onit	V-F 11-112	Min	Max	RLA	HP	kW	Amps	FLA	IVICA	
UNH09 UNH12	115-1-60	104	126	0.64	0.02	-	-	.64	0.8	15
	115-1-60	104	120	0.04		0.75	6.50	7.14	8.9	15
	208/230-1-60	200/220 4 60	197	240	0.34	0.02	-	-	0.34	0.4
		197	240	0.54	0.02	3.00	13.04	13.38	16.7	20
	115-1-60		126	1.20		-	-	1.20	1.5	15
		104			0.08	0.75	6.52	7.72	9.7	15
UNH24						1.25	10.90	12.10	15.1	20
UNFIZ4				0.56	0.56 0.07	-	-	0.56	0.7	15
	208/230-1-60	/230-1-60 197	240			3.00	13.04	13.60	17.0	20
						5.00	21.74	22.30	27.9	30

Outdoor Unit	Pov	Power Supply V-1-60 Control* V-1-60		Co	mpres	sor	Outo	Outdoor Fan Motor		Unit FLA	MCA	МОСР		
Oilit	Volts	Min	Max	V-1-00	Qty	RLA	LRA	Qty	FLA	Нр	FLA			
T2H8800	208/230	197	240	24	2	5.4	36.0	1	1.8	0.33	12.6	14.0	15	
T2H8400	208/230	197	240	24	1	5.4	36.0	1	1.8	0.33	16.0	18.2	25	
1200400	200/230	197	240	24	1	8.8	54.0	'	1.0	0.33	10.0	10.2	25	
T2H4400	208/230	197	240	24	2	8.8	54.0	1	1.8	0.33	19.4	21.6	30	
T2H2400	208/230	197	240	24	1	4.3	27.0	1	1.8	0.33	14.9	17.1	25	
12112400	200/230	191	240	24	1	8.8	54.0	'	1.0	0.55	14.9	17.1	25	
T2H9800	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	10.6	12.0	15	
12119000	200/230	197	240	24	1	5.4	36.0	'	1.0	0.55	10.0	12.0	15	
T3H9990	208/230	197	240	24	3	3.4	23.0	1	1.8	0.33	12.0	12.9	15	
T3H9920	208/230	3/230   197	107	240	24	2	3.4	23.0	1	1.8	0.33	12.9	14.0	15
13119920	19920   200/230   197	240	27	1	4.3	27.0	'	1.0	0.55	12.9	14.0	15		
T3H008U	3H9980 208/230 197 240	240	240 24	2	3.4	23.0	1	1.8	0.33	14.0	15.4	20		
13113300		191	270	270	24	1	5.4	36.0	_ '	1.0	0.55	14.0	13.4	20
T3H9940	208/230	197	240	24	2	3.4	23.0	1	1.8	0.33	17.4	19.6	25	
10110040	200/200	107	240	27	1	8.8	54.0	<u>'</u>	1.0	0.55	17.4	19.0	25	
T3H9220	208/230	197	240	24	1	3.4	23.0	1	1.8	0.33	13.8	14.9	15	
10110220	200/200	107	240	24	2	4.3	27.0		1.0	0.00	10.0	14.5	15	
					1	3.4	23.0							
T3H9280	208/230	197	240	24	1	4.3	27.0	1	1.8	0.33	14.9	16.3	20	
					1	5.4	36.0							
					1	3.4	23.0							
T3H9240	208/230	208/230   197	7 240	24	1	4.3	27.0	1	1.8	0.33	18.3	20.5	25	
					1	8.8	54.0							
T3H2280	208/230	197	240	24	2	4.3	27.0	1	1.8	0.33	15.8	17.2	20	
10112200	200/200	107	2-10	<b>_</b> -	1	5.4	36.0		'	0.00	10.0	17.2		

Note: \* - Control Voltage is supplied from the indoor unit. No separate supply required.

Manufacturer reserves the right to change these specifications at any time without incurring obligation.

### **ELECTRICAL SPECIFICATIONS Continued**

Outdoor Unit	Power Supply V-1-60		Control*	Co	mpres	sor	Outdoor Fan Motor			Unit FLA	MCA	МОСР	
Offic	Volts	Min	Max	V-1-00	Qty	RLA	LRA	Qty	FLA Hp	Нр	FLA		
T2U2240	200/220	197	240	24	2	4.3	27.0	4	1.0	0.33	10.2	21.4	30
1302240	T3H2240   208/230	197	240	24	1	8.8	54.0	'	1.8	0.33	19.2	21.4	30
T3H2220	208/230	197	240	24	3	4.3	27.0	1	1.8	0.33	14.7	15.8	20
T4H9999	208/230	197	240	24	4	3.4	23.0	1	1.8	0.33	15.4	16.3	20
T4H9992	200/220	08/230 197	197 240	24	3	3.4	23.0	1	1.8	0.33	16.3	17.4	20
1409992	200/230		240		1	4.3	27.0		1.0	0.55			
T4H9922	208/230	197	407 040	0 24	2	3.4	23.0	1	1.0	0.33	17.2	18.3	20
14119922	208/230	197	240		2	4.3	27.0		1.8	0.33			
T4U0222	200/220	208/230 197 240	240	24	1	3.4	23.0	1	1.0	0.33	18.1	10.2	20
T4H9222	208/230   1		197   240		3	4.3	27.0		1.8	0.33		19.2	
T4H2222	208/230	197	240	24	4	4.3	27.0	1	1.8	0.33	19.0	20.1	25

Note: \* - Control Voltage is supplied from the indoor unit. No separate supply required.

# **SOUND DATA**

Unit	Sound dBA
UNH09 or UNH12	51
UNH24	56
T2H	70
T3H	70
T4H	70

Note: Sound data for indoor unit at high speed, 230 V Sound data for outdoor unit at 230V

### **WEIGHT DATA**

Unit	Weight, lbs (kg)
UNH09	92 (41.8)
UNH12	95 (43.2)
UNH24	116 (52.7)
T2H	325 (147.7)
ТЗН	325 (147.7)
T4H	325 (147.7)

### INTERCONNECTING TUBING SPECIFICATIONS

Indoor Unit	Outdoor Circuit Capacity	Maximum Separation, Equivalent ft (m)	Maximum Elevation Difference ft (m)	Liquid Line OD	Suction Line OD	Condensate Line ID
UNH09	9,000 Btuh	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"
UNH12	12,000 Btuh	100 (30.5)	35 (10.7)	1/4"	1/2"	1/2"
UNH24	18,000 Btuh	100 (30.5)	35 (10.7)	3/8"	5/8"*	1/2"
UNH24	24,000 Btuh	100 (30.5)	35 (10.7)	3/8"	3/4"	1/2"

<sup>\*</sup> UNH24 Suction Connection size is 3/4" O.D. and must bush down at the UNH Unit.

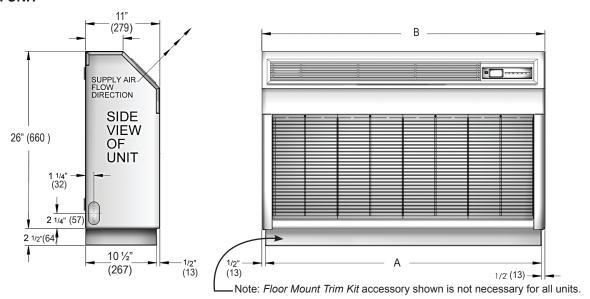
# INDOOR AIR FLOW

Indoor Unit	CFM (I/s)		Coil	ft/min (m/a)	Air Throw ft (m)
	High Speed	Low Speed	Coll	ft/min (m/s)	Air Throw, ft. (m)
UNH09 or UNH12	425 (200)	375 (175)	Dry	900 (4.6)	15 (4.6)
UNH24	700 (350)	550 (250)		1,225 (6.2)	24 (7.3)

### **PHYSICAL DIMENSIONS**

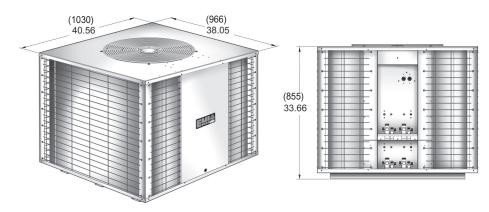
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#### INDOOR UNIT -

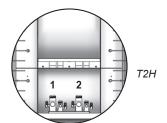


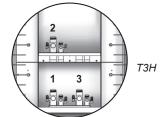
	UNH PHYSICAL DIMENSIONS				
Model	"A" Depth Inches (mm)	"B" Length Inches (mm)			
UNH09/12	40 ½" (1029)	41 ½" (1054)			
UNH24	50 ½" (1283)	51 ½" (1308)			

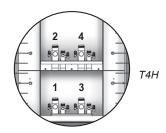
#### **OUTDOOR UNIT-**



### - Circuit Connection Locations -







Note: Numbers in ( ) are mm.

Phone: 1-800-228-9364 FAX: 1-800-232-9364

